

### **ABSTRACT OF THE DISCLOSURE**

This invention relates to a composition of matter comprising derivatized nanoparticles comprising inorganic nanoparticles having an attached metal-ion sequestrant, wherein said inorganic nanoparticles have an average  
5 particle size of less than 200 nm and the derivatized nanoparticles have a stability constant greater than  $10^{10}$  with iron (III). It further relates to an article comprising said derivatized nanoparticles and to a method of removing iron from a liquid medium by contacting said medium with the derivatized nanoparticles.